

Abstract of the Disclosure

Methods and devices for perfusing a blood vessel during the entire course of an end-to-side or end-to-end anastomosis procedure. One method can be

5 used to form an end-to-side anastomosis of a saphenous vein graft to a coronary artery during an off-pump, beating heart, coronary artery bypass graft. In this example, the distal end of an elongate tube carrying a saphenous vein graft is advanced into an arteriotomy distal to an occlusion in the coronary artery.

Perfusing blood flow is provided through the tube to the coronary artery, the vein

10 graft is advanced over the tube to the arteriotomy and sutured completely to the coronary artery. The elongate tube can be retracted through the now secured vein graft, and the coronary artery supplied again from the proximal end of the vein graft. Some tubular devices include a reversibly expandable distal region, to form a seal between the inserted tube and the coronary artery being perfused, to

15 prevent blood flow into the surgical field.